

CLAIM AMENDMENTS:

1. (canceled).

2. (canceled).

3. (canceled).

4. (canceled).

5. (canceled).

6. (currently amended) ~~The semiconductor device of claim 1,~~ A semiconductor device of a double diffused MOS structure employing a silicon carbide semiconductor substrate, the device comprising:

a silicon carbide semiconductor epitaxial layer provided on a surface of the silicon carbide semiconductor substrate and having a first conductivity which is the same conductivity as the silicon carbide semiconductor substrate;

an impurity region formed by doping a surface portion of the silicon carbide semiconductor epitaxial layer with an impurity of a second conductivity, the impurity region having a profile such that a near surface thereof has a relatively low second-conductivity impurity concentration and a deep portion thereof has a relatively high second-conductivity impurity concentration, wherein a second-conductivity impurity concentration in an outermost surface portion of the impurity region is controlled to be lower than a first-conductivity impurity concentration in the silicon carbide semiconductor epitaxial layer;

~~further comprising~~ a further impurity region by doping a surface portion of the impurity region of the second conductivity with an impurity of the first conductivity[[,]]; and

~~wherein~~ a channel region having the first conductivity ~~[[is]]~~ formed in the outmost surface portion between the epitaxial layer and the further impurity region of the first conductivity.

7. (currently amended) ~~The method of claim 3~~ A semiconductor device manufacturing method for manufacturing a semiconductor device of a double diffused MOS structure employing a silicon carbide semiconductor substrate, the method comprising steps of:

forming a silicon carbide semiconductor epitaxial layer having a first conductivity on a surface of the silicon carbide semiconductor substrate, the first conductivity being the same conductivity as the silicon carbide semiconductor substrate; and

doping a surface portion of the silicon carbide semiconductor epitaxial layer with an impurity of a second conductivity to form an impurity region having a profile such that a near surface thereof has a relatively low second-conductivity impurity concentration and a deep portion thereof has a relatively high second-conductivity impurity concentration,

wherein the surface portion of the silicon carbide semiconductor epitaxial layer is doped with the impurity of the second conductivity by single-step ion implantation in the impurity region forming step, the single-step ion implantation being performed with a single constant level of implantation energy, and

wherein a first-conductivity impurity concentration in the epitaxial layer is higher than a second-conductivity impurity concentration in an outermost surface portion of the impurity region, so as to form a channel region having the first conductivity in the outermost surface portion of the impurity region.